NRC NEWS

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U.S. Nuclear Regulatory Commission

at the

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Protecting Our Nation

It is my pleasure to address the Nuclear Security Executive Forum. Before presenting my prepared remarks, I would like to share something that Tom Ridge (Director of the Department of Homeland Security) said at one of our meetings. He said, "We will do what we have to do to protect the American people." I agree with that statement and hope that you will see from my remarks, how we have been putting it into action.

The Nuclear Regulatory Commission recognizes the important work that each and every organization and individual represented here has done and continues to do in protecting our Nation, as well as the contributions that the Nuclear Security Coordinating Council can make to further enhance nuclear safety and security. Today, I will be presenting my individual views, which do not necessarily represent the views of the Commission, unless I state otherwise.

Let me start with a quote, an old but well-known quote attributed to Edmund Burke, the 18th century British Statesman,

"*The only thing necessary for the triumph of evil is for good men to do nothing*."

To do nothing after September 11th was not an option; to do a lot of good was necessary.

We in the government, and you in the private sector, both men and women, have done a lot more than "*nothing*": we are well prepared to defend our nuclear installations and our homeland against

a plausible assault or an accident. The industry and the NRC were well prepared for the post-9/11 world by three decades of threat assessments and implementation of physical security requirements. In this new world, we acted aggressively on the information that we had and the needs we perceived. The NRC established high and stringent new requirements for the protection of nuclear facilities and the industry has been meeting the challenge. The need to act early resulted in the issuance of the February 25, 2002 Orders, without prior discussion with the industry. Since that time, we have been engaged with our licensees in a deliberate manner, while maintaining aggressive schedules in order to continue enhancing the protection of the public health and safety.

I am pleased to recognize the accomplishments of the Commission and its licensees during the last three years in providing increased protection for our people. In order to establish an aggressive schedule for increasing physical security, the Commission has labored long and hard to maintain an in-depth knowledge and understanding of the results of the assessments and the changes made at nuclear power plants. A significant aspect of our effort has been to make sure our sister Federal agencies remain fully informed. I can report today that every nuclear power plant in the United States of America meets the requirements for providing assurance that their activities are not inimical to the common defense and security and do not constitute an unreasonable risk to the public health and safety. Enhanced safety, security, and emergency preparedness are cornerstones for the protection of the people of America; the nuclear power industry and the government have today the requisite level of safety, security, and preparedness. However, the NRC continues to be vigilant, cognizant of the threat and of the need to ensure that every one of our licensees is performing at the levels needed for high assurance to defeat the DBT, and adequate assurance for protection of the public.

Although we must keep a close hold on sensitive information involving the details of our security efforts, it should be clear to all that we have been very actively pursuing security enhancements at nuclear power plants and other facilities along three parallel tracks: increased physical security, including implementation of supplements to the Design Basis Threat; enhanced plant mitigation capabilities; and improved integrated response capabilities that compliment physical security and mitigation capabilities.

The requirements relating to the supplemented Design Basis Threats were issued by the NRC following a deliberative and disciplined process involving analysis of threat information, and in-depth discussions with our licensees. As you may know, we have recently reached a significant milestone relative to the implementation of the DBT. On October 29, 2004, all U.S. nuclear power plants achieved effective implementation of significant supplemental security protections in accordance with NRC-approved security plans.

The second track involves vulnerability assessments and mitigation strategies which strengthen safety and security against attacks both within and beyond the design basis threat. After the terrorist attacks on September 11, 2001, the NRC promptly began assessing the potential for and consequences of terrorists targeting a nuclear power plant for aircraft attack, the physical effects of such a strike, and compounding factors such as meteorology that would affect the impact of potential radioactive releases. As a result of these ongoing assessments, the NRC Orders of February 25, 2002, included physical security enhancements and required that nuclear power plant licensees implement interim enhancements to mitigate potential consequences in the unlikely event of an attack on a nuclear power plant. The enhanced mitigation strategies and mitigative measures were put in place and inspected by the NRC

over the past two years. In those two years, we and the nuclear industry, have continued to perform assessments, and to identify additional potentially useful mitigation strategies.

Regulatory inspections at each nuclear power plant, and sharing of lessons learned continue to strengthen the advancements in this area. These mitigation requirements were unconventional and were intended to be so. We expect licensees to be vigorous and forward looking in their implementation. The requirement to develop mitigation strategies and measures based on realistic assessments of structures, systems, components, and human capabilities, without the traditional regulatory reliance on installed and automatic "safety systems," or "Appendix B" quality controls, or single failure requirements, or NRC approved "evaluation models" is unconventional, non-prescriptive, and challenging. It is, however, risk-informed and protection-based.

I applaud those many licensees, and others in the industry, who have seen this approach for what it is, a practical and demanding, risk informed effort to enhance the protection of their facilities and the public. It is intended to be:

An opportunity to be as prepared as can be reasonably expected for any contingency,

An opportunity to enhance safety and security by utilizing the best and most practical ideas available,

An opportunity to draw upon external assets when needed, including assets from the nuclear sector, from local, state and federal government, and

An opportunity to set an example for other sectors to emulate.

I believe everyone needs to take full advantage of this unconventional approach and make their plants as good as they should be, and I encourage our licensees to be fully responsive to its spirit and its vision. The need for enhanced security, safety and preparedness is real and will continue. We will be revisiting all reactor sites to re-evaluate their implementation efforts.

In addition, complementary site-specific studies are being planned to determine the need, if any, for additional mitigating capabilities for both reactors and spent fuel pools. This last effort involves assessments conducted by the nuclear industry, with effective NRC oversight, and with the cooperation of the Department of Homeland Security.

The third of the parallel tracks is the enhancement of integrated response capabilities, including the unified and coordinated response of Federal, state, local and private sector assets to manage the effects of a terrorist attack. DHS is leading the efforts for implementing national integrated response capabilities; the NRC has been working closely with HSC and DHS since the initiation of these efforts.

Let me add some details to the summary discussion I just presented. Our post-9/11 review of security issues has highlighted how closely connected are reactor safety, security, and emergency preparedness. It was with this close connection in mind that we issued comprehensive Security Orders shortly after 9/11, which tightened existing policies and procedures in the light of the more current information and addressed security, safety, and preparedness enhancement strategies to mitigate large explosions and fires. We all know that terrorists' events may introduce unique concerns. However, the

nuclear industry and the NRC have the necessary experience to avoid or mitigate reactor accidents; this expertise is directly applicable to protecting against and mitigating acts of terrorism. The same safety functions are involved, the same safety strategies are involved, the same systems are involved, and the same physical reactor barriers are involved. The post 9/11 challenge for this sector became one of recognizing and preparing for an increased threat level with increased physical security, and enhanced safety and preparedness. Therefore, the NRC required, and our licensees implemented, comprehensive enhancements to nuclear power plant security measures which include multiple, but strongly interdependent elements, all directed to one fundamental goal: how best to protect the public with the appropriate resources placed at the right places. These elements are:

Enhanced access controls and human reliability program, to prevent unauthorized entry of persons and materials to nuclear facilities;

Enhanced work and training requirements for security personnel, to increase their capability to detect and respond to threats;

Enhanced *Force-on-Force* security exercises at nuclear power plants to provide a more realistic evaluation of the proficiency of the licensees security force;

Supplemented Design Basis Threat (addressing vehicle bomb threats, land-based and water-based assaults) and associated defensive capabilities;

Enhanced mitigation procedures and strategies based on the results of extensive studies, and using a Severe Accident Management approach, and

Enhanced emergency preparedness to ensure that the planned integrated response of licensees, the NRC, DHS, other Federal agencies, and state and local agencies continue to be able to protect the public from the potential consequences of a wide spectrum of radiological events.

Furthermore, since 9/11, America, with the leadership of the U.S. government, state and local authorities, and the cooperation of many elements of the private sector, has responded in a manner that increases nuclear power plant security. Prevention, protection and mitigation work together, and they work together better every day. The Homeland Security Council, the Department of Homeland Security, NORTHCOM, the FBI, the NRC and other agencies have worked together to enhance the Nation's overall detection, prevention, mitigation, and response capabilities for protecting against acts of terrorism at nuclear facilities. In fact, the people of America have become an integral factor in these strategies. It is clear that we have made significant progress in the past year toward achieving an integrated response program for the protection of nuclear facilities and we thank the Office of the President and our sister agencies for their efforts.

I would be remiss if I did not address further the issue that makes the most headlines: the intentional crash of an aircraft on a nuclear power plant. The NRC has conducted extensive analyses of the capability of representative nuclear power plants to withstand an aircraft attack. While these analyses are classified, the studies confirm that the likelihood of damaging the reactor core and releasing radioactivity that could affect public health and safety is low. The fact is that nuclear reactor design requirements for structures to withstand severe external events (hurricanes, tornadoes, and floods), and for safety systems to include redundant emergency core cooling, redundant and diverse heat

removal, fire protection features, and station blackout capabilities, provide built-in means of dealing with terrorist attacks. Therefore, I will emphasize again that existing emergency operating procedures and enhanced severe accident management guidelines are well suited for mitigating the effects of accidents or intentional attacks on nuclear power plants. Of course, those procedures and guidelines need to be well planned and executed - - with no outliers.

As can be surmised, we and I mean us all, have done a lot during the last three years. I believe it is important now that we get better at effectively implementing every aspect of what we have committed to do, before we add to the mix. Practice makes perfect and know-how defines what to practice.

In summary, I believe that the NRC, our Federal partners, and the industry have done their jobs well, planning for success in safety and security but ever prepared to deal with the expected as well as the unexcepted. We have assessed what needs to be done and we are doing it. I am thankful for the opportunity to share my views, as well as to listen to the other viewpoints that will be presented this morning. We all realize that we have a joint responsibility to the American public and we will continue to discharge that responsibility and do it well.